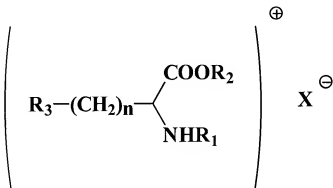


### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A process for preparing a N<sup>α</sup>-acyl-L-arginine ester according to the following formula:



where:

X<sup>-</sup> is Br<sup>-</sup>, Cl<sup>-</sup>, or HSO<sub>4</sub><sup>-</sup>

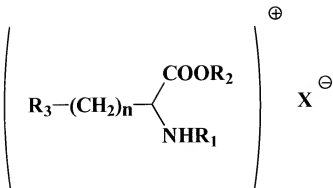
R<sub>1</sub> is a linear alkyl chain from a saturated fatty acid, or a hydroxy-acid, having from 8 to 14 atoms of carbon and being bonded to the α-amino acid group through amidic bond;

R<sub>2</sub> is a linear or branched alkyl chain from 1 to 18 carbon atoms or a phenylic group;

R<sub>3</sub> is:



and n is 3, the process comprising reacting (i) a N<sup>α</sup>-acyl-L-arginine acid, as a cationic salt or acid salt, of the formula:



where X<sup>+</sup>, R<sub>1</sub>, and R<sub>3</sub> are as described above and R<sub>2</sub> is H, an organic cation, or an inorganic cation; and (ii) an alcohol with (a) a linear or branched alkyl chain from 1 to 18 carbon atoms or (b) a phenylic group, in the presence of (iii) a catalyst comprising a hydrolase, the reaction being carried out in a low-water-content organic medium.

2. (Cancelled)

3. (Previously Presented) The process as claimed in Claim 1, wherein the N<sup>o</sup>-acyl-L-arginine ester is the ethyl ester of the laurylamide of L-arginine (LAE).

4. (Currently Amended) The process as claimed in Claim 1[[2]], wherein the ~~starting~~ N<sup>o</sup>-acyl-L-arginine acid (i) is the N<sup>o</sup>-laurylamide of L-arginine.

5. (Previously Presented) The process as claimed in Claim 1, wherein said hydrolase is a protease.

6. (Original) The process as claimed in Claim 5, wherein said protease is papain from *Carica papaya*.

7. (Previously Presented) The process as claimed in Claim 1, wherein the enzyme is adsorbed onto a solid support comprising at least one support chosen from polypropylenes, polyamides, diatomaceous earths, clays,

zeolites, activated charcoals, substituted celluloses, ion exchange resins, insoluble polysaccharides, porous glass beads, aluminium oxide, celite, silica gels, and mixtures thereof.

8. (Previously Presented) The process as claimed in Claim 7, wherein enzyme adsorption onto the solid substrate is carried out by lyophilisation or humectation of a mixture of the solid support and a dispersion of the enzyme in an appropriate buffer solution.

9. (Presently Presented) The process as claimed in Claim 1, wherein the low-water-content organic medium comprises at least one reaction solvent chosen from sterically hindered alcohols, acetonitrile, cyclic ethers, chlorinated hydrocarbons, ketones, esters, ethers, aromatic hydrocarbons, aliphatic hydrocarbons and mixtures thereof.

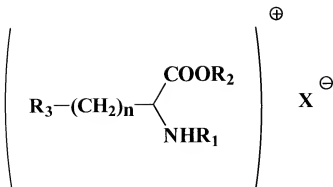
10. (Previously Presented) The process as claimed in Claim 1, wherein the reaction is performed at a water activity between 0.02 and 0.1.

11. (Previously Presented) The process as claimed in Claim 1, wherein the reaction is performed at a temperature between 20°C and 45°C.

12. (Previously Presented) The process as claimed in Claim 1, wherein the reaction is performed at a pH between 3 and 10.

13. (Previously Presented) The process as claimed in Claim 1, wherein water generated in the reaction mixture is drained by a drying agent or a physical method, placed inside or outside of a vessel in which the reaction is performed.

14. (Previously Presented) A process for preparing a N<sup>α</sup>-acyl-L-arginine ester according to the following formula:



where:

X<sup>-</sup> is Br<sup>-</sup>, Cl<sup>-</sup>, or HSO<sub>4</sub><sup>-</sup>

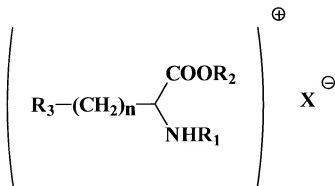
R<sub>1</sub> is a linear alkyl chain from a saturated fatty acid, or a hydroxy-acid, having from 8 to 14 atoms of carbon and being bonded to the α-amino acid group through amidic bond;

R<sub>2</sub> is a linear or branched alkyl chain from 1 to 18 carbon atoms or a phenylic group; and

R<sub>3</sub> is:



where n is 3, the process comprising reacting (i) N<sup>α</sup>-acyl-L-arginine acid, as a cationic salt or acid salt, of the formula:



where X<sup>-</sup>, R<sub>1</sub>, and R<sub>3</sub> are as described above and R<sub>2</sub> is H, an organic cation or an inorganic cation; and (ii) an alcohol with (a) a linear or branched alkyl chain from 1 to 18 carbon atoms or (b) a phenylic group, in the presence of (iii) a

catalyst comprising a protease, the reaction being carried out in a low-water-content organic medium, wherein the protease is adsorbed onto a solid support comprising at least one support chosen from polypropylenes, polyamides, diatomaceous earths, clays, zeolites, activated charcoals, substituted celluloses, ion exchange resins, insoluble polysaccharides, porous glass beads, aluminum oxide, celite, silica gels, and mixtures thereof.

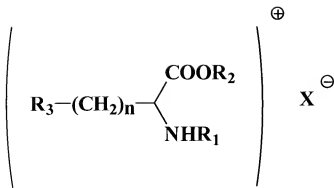
15. (Previously Presented) The process as claimed in Claim 14, wherein enzyme adsorption onto the solid support is carried out by lyophilization or humectation of a mixture of the solid support and a dispersion of the enzyme in an appropriate buffer solution.

16. (Previously Presented) The process as claimed in claim 14, wherein the low-water-content organic medium comprises at least one reaction solvent chosen from sterically hindered alcohols, acetonitrile, cyclic ethers, chlorinated hydrocarbons, ketones, esters, ethers, aromatic hydrocarbons, aliphatic hydrocarbons and mixtures thereof.

17. (Previously Presented) The process as claim in Claim 14, wherein the N<sup>α</sup>-acyl-L-arginine ester is the ethyl ester of the laurylamide of L-arginine (LAE).

18. (Previously Presented) The process as claimed in Claim 14, wherein said protease is papain from *Carica papaya*.

19. (Previously Presented) A process for preparing a N<sup>α</sup>-acyl-L-arginine ester according to the following formula:



where:

$\text{X}^{\ominus}$  is  $\text{Br}^{\ominus}$ ,  $\text{Cl}^{\ominus}$ , or  $\text{HSO}_4^{\ominus}$

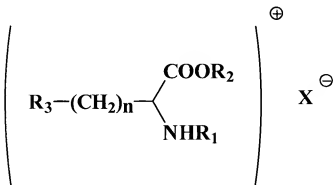
$\text{R}_1$  is a linear alkyl chain from a saturated fatty acid, or hydroxy-acid, having from 8 to 14 atoms of carbon and being bonded to the  $\alpha$ -amino acid group through amidic bond;

$\text{R}_2$  is a linear or branched alkyl chain from 1 to 18 carbon atoms or aromatic a phenylic group; and

$\text{R}_3$  is:



where n is 3, the process comprising reacting (i)  $\text{N}^{\alpha}$ -acyl-L-arginine acid, as a cationic salt or acid salt, of the formula:



where  $\text{X}^{\ominus}$ ,  $\text{R}_1$ , and  $\text{R}_3$  are as described above and  $\text{R}_2$  is H, an organic cation or an inorganic cation; and (ii) an alcohol with (a) a linear or branched alkyl chain from 1 to 18 carbon atoms or (b) a phenylic group, in the presence of (iii) a

catalyst comprising a papain from *Carica papaya*, the reaction being carried out in a low-water-content organic medium,

wherein the papain is adsorbed onto a solid support comprising at least one support chosen from polypropylenes, polyamides, diatomaceous earths, clays, zeolites, activated charcoals, substituted celluloses, ion exchange resins, insoluble polysaccharides, porous glass beads, aluminium oxide, celite, silica gels, and mixtures thereof, and

wherein the N<sup>α</sup>-acyl-L-arginine ester is the ethyl ester of the laurylamide of L-arginine (LAE).

20. (Previously Presented) The process as claimed in claim 19, wherein enzyme adsorption onto the solid support is carried out by lyophilization or humectation of a mixture of the solid support and a dispersion of the enzyme in an appropriate buffer solution.

21. (Previously Presented) The process according to claim 7, wherein the substituted cellulose is chosen from a carboxymethyl cellulose, a cellulose ester, or combinations of two or more thereof.

22. (Previously Presented) The process according to claim 14, wherein the substituted cellulose is chosen from a carboxymethyl cellulose, a cellulose ester, or combinations of two or more thereof.

23. (Previously Presented) The process according to claim 19, wherein the substituted cellulose is chosen from a carboxymethyl cellulose, a cellulose ester, or combinations of two or more thereof.